

What is claimed is:

1. A method for scrolling comprising the steps of:

generating a window, for displaying information and scrolling through the information responsive to receiving a scrolling command; and

5 enabling, responsive to a user selection, either i) a non-contextual scrolling mode, for which a certain one of the scrolling commands scrolls the window by a fixed step size, or ii) a context-sensitive scrolling mode, for which the same certain one of the scrolling commands scrolls the window by a variable step size responsive to content of the information displayed.

10 2. The method of claim 1, wherein the information includes a succession of objects and in a current position the window displays a first portion of the information beginning at the top of the window and ending at the bottom of the window, the method comprising the step of:

15 scrolling downward with the context-sensitive scrolling mode enabled, wherein if in the current position of the window an object is a bottom-most one of the objects and has a bottom end shown, then the variable step size is of such a size that the window steps down to a next position wherein the window displays a next portion of the information beginning at the top of a next object after the current bottom-most object.

20 3. The method of claim 1, comprising the step of receiving a command for context-sensitive scrolling from a pointing input device or a discrete step input device.

4. The apparatus of claim 3, wherein the discrete step input device is a keyboard, a keypad or a microphone.

5. The method of claim 3, wherein the pointing input device is a mouse, a trackball, a light pen, a touch screen, a track point, or a touch pad.

6. The method of claim 1, wherein for a context-sensitive scrolling command received from a pointing input device, if a commanded scrolling movement exceeds a single scrolling step size, then the widow steps down multiple times through the information, pausing to display the information after each step.

7. The method of claim 6, wherein the pauses are more brief for a larger commanded scrolling movement than for a smaller scrolling movement.

8. The method of claim 6, wherein the pauses are more brief for a faster commanded scrolling movement than for a slower scrolling movement.

9. The method of claim 1, wherein the content to which the context-sensitive scrolling responds is: a sentence, paragraph, section, division, chapter, page, hypertext link, row, column, cell, image, pause in sound, verse, stanza, refrain, interlude, movement, chorus, act, scene, commercial, quarter, half, highlight, play, time-out or bookmark.

10. A method for scrolling comprising the steps of:

generating a window, for displaying information and scrolling through the information responsive to a scrolling command, wherein in a current position the window displays a first portion of the information beginning at the top of the widow and ending at the bottom of the window; and

scrolling downward with a context-sensitive scrolling mode enabled, wherein if in the current position an object is a top-most object in the window and has a bottom-most end shown, then the window steps down to a next position wherein the window displays a next portion of the information beginning at the top of a next object after the current top-most object; and

scrolling downward with a context-sensitive scrolling mode enabled, wherein if in the current position the top-most object is cut off at the bottom of the window and has a bottom-most sub-object, then the window steps down to a next position wherein the window displays a next portion of the information beginning at the top of the current bottom-most sub-object.

11. The method of claim 10 wherein the current top-most object has a certain sub-object that is a bottom-most sub-object shown in the current position of the window, the method comprising the step of:

scrolling downward with a context-sensitive scrolling mode enabled, wherein if in the current position the top-most object is cut off at the bottom of the window and its bottom-most sub-object has a bottom-most end shown, then the window steps down to a next position wherein the window displays a next portion of the information beginning at the top of a next sub-object after the current bottom-most sub-object.

12. The method of claim 10, comprising the step of receiving a command for context-sensitive scrolling from a pointing input device or a discrete step input device.

13. The method of claim 12, wherein the pointing input device is a mouse, a trackball, a light pen, a touch screen, a track point or a touch pad.

14. The apparatus of claim 12, wherein the discrete step input device is a keyboard, a keypad or a microphone.

15. The method of claim 10, wherein for a context-sensitive scrolling command received from a pointing input device, if a commanded scrolling movement exceeds a single scrolling step size, then the widow steps down multiple times through the information, pausing to display the information after each step.

16. The method of claim 15, wherein the pauses are more brief for a larger commanded scrolling movement than for a smaller scrolling movement.

17. The method of claim 15, wherein the pauses are more brief for a faster commanded scrolling movement than for a slower scrolling movement.

18. The method of claim 10, wherein the content to which the context-sensitive scrolling responds is: a sentence, paragraph, section, division, chapter, page, hypertext link, row, column, cell, image, pause in sound, verse, stanza, refrain, interlude, movement, chorus, act, scene, commercial, quarter, half, highlight, play, time-out or bookmark.

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19. An apparatus for scrolling information on a display device, the apparatus comprising:

a processor;

a display device connected to the processor;

a user input device connected to the processor; and

5 a storage device connected to the processor, wherein the storage device is for storing a program for controlling the processor, and the processor is operative with the program to generate a window, for displaying information and scrolling through the information responsive to receiving a scrolling command, and the processor is operative with the program to enable, responsive to a user selection, either i) a non-contextual scrolling mode, for which a certain one of the scrolling commands scrolls the window by a fixed step size, or ii) a context-sensitive scrolling mode, for which the same certain one of the scrolling commands scrolls the window by a variable step size responsive to content of the information displayed.

20. The apparatus of claim 19, wherein the information includes a succession of objects and in a current position the window displays a first portion of the information beginning at the top of the widow and ending at the bottom of the window, and wherein the processor is operative with the program to scroll downward with the context-sensitive scrolling mode enabled, wherein if in the current position of the window an object is a bottom-most one of the objects and has a bottom end shown, then the variable step size is of such a size that the window steps down to a next position wherein the window displays a next portion of the information beginning at the top of a next object after the current bottom-most object.

21. The apparatus of claim 19, wherein in a current position the window displays a first portion of the information beginning at the top of the widow and ending at the bottom of the window, and wherein the processor is operative with the program to do the following:

scroll downward with a context-sensitive scrolling mode enabled, wherein if in the current position an object is a top-most object in the window and has a bottom-most end shown, then the window steps down to a next position wherein the window displays a next portion of the information beginning at the top of a next object after the current top-most object; and

scroll downward with a context-sensitive scrolling mode enabled, wherein if in the current position the top-most object is cut off at the bottom of the window and has a bottom-most sub-object, then the window steps down to a next position wherein the window displays a next portion of the information beginning at the top of the current bottom-most sub-object.

22. The apparatus of claim 21, wherein the current top-most object has a certain sub-object that is a bottom-most sub-object shown in the current position of the window, and wherein the processor is operative with the program to scroll downward with a context-sensitive scrolling mode enabled, wherein if in the current position the top-most object is cut off at the bottom of the window and its bottom-most sub-object has a bottom-most end shown, then the window steps down to a next position wherein the window displays a next portion of the information beginning at the top of a next sub-object after the current bottom-most sub-object.

23. The apparatus of claim 22 comprising a pointing input device for inputting the command for context-sensitive scrolling.

24. The apparatus of claim 23, wherein the pointing input device is a mouse, a trackball, a light pen, a touch screen, a track point or a touch pad.

25. The apparatus of claim 22 comprising a discrete step input device for inputting the  
5 command for context-sensitive scrolling.

26. The apparatus of claim 25, wherein the discrete step input device is a keyboard, a keypad or a microphone.

27. The apparatus of claim 22, wherein for a context-sensitive scrolling command  
10 received from a pointing input device, if a commanded scrolling movement exceeds a single scrolling step size, then the widow steps down multiple times through the information, pausing to display the information after each step.

28. The apparatus of claim 22, wherein the pauses are more brief for a larger commanded  
15 scrolling movement than for a smaller scrolling movement.

29. The apparatus of claim 22, wherein the pauses are more brief for a faster commanded  
scrolling movement than for a slower scrolling movement.



30. The apparatus of claim 22, wherein the content to which the context-sensitive scrolling responds is: a sentence, paragraph, section, division, chapter, page, hypertext link, row, column, cell, image, pause in sound, verse, stanza, refrain, interlude, movement, chorus, act, scene, commercial, quarter, half, highlight, play, time-out or bookmark.

31. A computer program product for scrolling comprising the steps of:

instructions for generating a window, for displaying information and scrolling through the information responsive to receiving a scrolling command; and

instructions for enabling, responsive to a user selection, either i) a non-contextual

5 scrolling mode, for which a certain one of the scrolling commands scrolls the window by a fixed step size, or ii) a context-sensitive scrolling mode, for which the same certain one of the scrolling commands scrolls the window by a variable step size responsive to content of the information displayed.

10 32. The computer program product of claim 31, wherein the information includes a succession of objects and in a current position the window displays a first portion of the information beginning at the top of the widow and ending at the bottom of the window, the computer program product comprising:

15 instructions for scrolling downward with the context-sensitive scrolling mode enabled, wherein if in the current position of the window an object is a bottom-most one of the objects and has a bottom end shown, then the variable step size is of such a size that the window steps down to a next position wherein the window displays a next portion of the information beginning at the top of a next object after the current bottom-most object.

20 33. A computer program product for scrolling comprising:

instructions for generating a window, for displaying information and scrolling through the information responsive to a scrolling command, wherein in a current position the window displays a first portion of the information beginning at the top of the widow and ending at the

bottom of the window; and

instructions for scrolling downward with a context-sensitive scrolling mode enabled,  
wherein if in the current position an object is a top-most object in the window and has a  
bottom-most end shown, then the window steps down to a next position wherein the window  
5 displays a next portion of the information beginning at the top of a next object after the current  
top-most object; and

instructions for scrolling downward with a context-sensitive scrolling mode enabled,  
wherein if in the current position the top-most object is cut off at the bottom of the window and  
has a bottom-most sub-object, then the window steps down to a next position wherein the  
10 window displays a next portion of the information beginning at the top of the current  
bottom-most sub-object.

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34. The computer program product of claim 33, wherein the current top-most object has  
a certain sub-object that is a bottom-most sub-object shown in the current position of the  
15 window, the computer program product comprising:

instructions for scrolling downward with a context-sensitive scrolling mode enabled,  
wherein if in the current position the top-most object is cut off at the bottom of the window and  
its bottom-most sub-object has a bottom-most end shown, then the window steps down to a next  
position wherein the window displays a next portion of the information beginning at the top of a  
20 next sub-object after the current bottom-most sub-object.

35. The computer program product of claim 33, comprising instructions for receiving a command for context-sensitive scrolling from a pointing input device or a discrete step input device.

5 36. The computer program product of claim 35, wherein the pointing input device is a mouse, a trackball, a light pen, a touch screen, a track point or a touch pad.

37. The computer program product of claim 35, wherein the discrete step input device is a keyboard, a keypad or a microphone.

38. The computer program product of claim 33, wherein for a context-sensitive scrolling command received from a pointing input device, if a commanded scrolling movement exceeds a single scrolling step size, then the widow steps down multiple times through the information, pausing to display the information after each step.

39. The computer program product of claim 38, wherein the pauses are more brief for a larger commanded scrolling movement than for a smaller scrolling movement.

40. The computer program product of claim 38, wherein the pauses are more brief for a  
20 faster commanded scrolling movement than for a slower scrolling movement.

41. The computer program product of claim 33, wherein the content to which the context-sensitive scrolling responds is: a sentence, paragraph, section, division, chapter, page, hypertext link, row, column, cell, image, pause in sound, verse, stanza, refrain, interlude, movement, chorus, act, scene, commercial, quarter, half, highlight, play, time-out or bookmark.